

VAGUENESS, TRUTH, AND NOTHING ELSE

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ABSTRACT

DAVID LUKE JOHN ELSON: Vagueness, Truth, and Nothing Else
(Under the direction of Keith Simmons.)

This paper is an investigation into the relationship between vagueness and deflationary accounts of truth. I outline both, and give reason to think that vagueness is an essential feature of our language. Then I argue that deflationary accounts of truth are unable to capture the Supervaluationist account of vagueness, because of that theory's non-classical nature. I give reasons to think that deflationism will have problems with any satisfactory account of vagueness.

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Deflationary, or minimal, accounts of truth—on which truth is not a robust metaphysical property; rather, the truth-predicate is a mere logical device—dispense with a lot. They do without any substantial account of truth, or of what it is for a sentence, thought or proposition to be true. In this paper, I shall argue that they dispense with too much. In particular, deflationary theories of truth are unable to accommodate plausible accounts of vagueness, and the features of those accounts that make them troublesome for the deflationist are precisely *those features which make them plausible accounts of vagueness*. So there is little hope that the deflationist will be able to provide a satisfactory account of vagueness.

Deflationists, needless to say, disagree:

the virtue of minimalism . . . is that *it provides a theory of truth that is a theory of nothing else, but which is sufficient, in combination with theories of other phenomena, to explain all the facts about truth.*¹

In this paper, we shall not be concerned so much with ‘facts about truth’, but with facts about other phenomena, which seem to need more from a theory of truth than deflationism can offer.²

Truth is implicated in popular accounts across philosophy. For Frege and Wright, to assert is to present as true;³ the non-cognitivist in ethics claims that moral statements like ‘torture is wrong’ are neither true nor false;⁴ her quasi-realist opponent replies that they are true or false, albeit in a rather special way;⁵ Marc Lange cashes out what it is to be a law of nature as truth under a maximal range of counterfactual suppositions.⁶ Dummett characterises ‘realism [. . .] as the belief that statements of the disputed class possess an objective truth-value, independent of our means of knowing it’;⁷ for Kit Fine, sentences using vague terms are true just in case they are true on all complete and

¹ Horwich (1990, p. 26).

² This may be a distinction without a difference.

³ Wright (1992, p. 34).

⁴ Ayer (1936).

⁵ Blackburn (1984).

⁶ Lange (forthcoming).

⁷ Dummett (1978).

admissible precisifications.⁸

I claim that deflationary accounts of truth can't do all this work. We're going to look at one case of this inability, and ask—can a successful and plausible account of vagueness be given, which deflationary theories of truth can handle? The answer, I shall claim, is no.

This paper is in four parts. In Part 1, I'll introduce three things: deflationary accounts of truth, the phenomena of vagueness and the Sorites paradox. In Part 2, I'll lay out the space of theories of vagueness, and argue that deflationism struggles to accommodate a prominent account—Supervaluationism. In Part 3, I'll consider two alternative accounts of vagueness, which might offer some hope to the deflationist, and argue that this hope comes at a cost of implausibility. Finally, I shall consider some of the broader issues raised (Part 4).

We'll need to get some material under our belts before we can make these issues precise. This will take up the first part of the paper.

PART 1: TRUTH, VAGUENESS AND PARADOX

In this first part of this paper, I will lay out several things: truth, vagueness and the Sorites paradox.

Before we begin, a notational note. When we are talking about linguistic objects (some of the things that are said, or written, or perhaps thought), such objects may be *used* or *mentioned*. I shall put single quotes (‘’) around a phrase to indicate that it is being mentioned, and not used. For example, Thomas Hofweber is a German metaphysician, but ‘Thomas Hofweber’ is the name of a German metaphysician. Italics will be used for emphasis, and *not* to mark the use-mention distinction.

⁸ Fine (1975).

Truth, and deflationary accounts thereof

In this section, I want to do four things: (i) to introduce the notion of truth (ie, the analysandum in a theory of truth, to use some slightly loaded terminology); (ii) to introduce the notion of a truth predicate; (iii) to look at what a theory of truth will have to do; (iv) to introduce deflationary theories of truth.

The notion of truth is an everyday one, but it is hard to gesture at it without making philosophically loaded statements. We can make some comments about clear cases. Let's look at some cases of truths and falsehoods. 'No ravens are both black and non-black' is (necessarily) true, 'I am sitting in my office' is (contingently) true, and 'I am on the moon' is (contingently) false. Of course, 'no ravens are both black and non-black' might have meant that blood is pink: used in a possible world where it has *that* meaning, the sentence is false. The point is that 'no ravens are both black and non-black', when uttered in English *as we actually use it*, is necessarily true. Truth—what is here attributed (or not) to these sentences—is our topic here. We may start with Aristotle's famous claim about truth:⁹ 'to say of what is that it is, or of what is not that it is not, is true'.

A central notion is that of a *truth predicate*. But what might truth be predicated of? Following Aristotle, let's take utterances as our truth-bearers. That is, each time a truth-apt utterance is made, that utterance may be true (if it says of what is that it is, or of what is not that it is not), or false. For convenience we will often describe sentences as being true or false, and this will cause no confusion if we remember that we are really talking about utterances of the sentence in question, by speakers who use English as we use it. Some accounts (notably Horwich) take propositions to be the main truth-bearers. A truth-predicate is a predicate 'T' that is properly applied to all and only true sentences. Tarski introduces a 'condition of material adequacy' on an account of truth:¹⁰

(TS) T(p) *iff* p

⁹ Metaphysics Γ (7:27).

¹⁰ For more on this, see Davidson (2005, pp. 19–39).

This may seem platitudinous—consider ‘snow is white’ is true *iff* snow is white—but some exceptions will have to be made to this Schema. To see this, first note that a corollary of (TS), assuming that every sentence is either true or false, is that ‘p’ is false *iff* not-p. Then, put ‘p’ = ‘p’ is false’: ‘p’ is false’ is true *iff* p, by (TS). Apply (TS) again: ‘p’ is false *iff* p. Finally, apply the corollary: not-p *iff* p. This is a contradiction. So any complete account of truth will have to deal with so-called ‘liar sentences’.

With some grasp of the notion of truth, and an adequacy constraint on any truth predicate, the natural next move is to try to give a *theory of truth*. A theory of truth will tell us *what it is for a sentence to be true*—for both a narrow and catholic reading of the italicised phrase. We may state the narrow reading more formally: a theory of truth will provide a (perhaps disjunctive) condition ϕ such that, for the theory’s truth predicate ‘T’, $T(p) \text{ iff } \phi(p)$, for any sentence ‘p’. Obviously we may combine this definition with the Truth Schema, to get that $\phi(p) \text{ iff } p$. At this point, we can afford to leave the catholic reading of ‘what it is for a sentence to be true’ up in the air.

Allegedly, the most natural account of truth is the so-called correspondence account, on which $T(p)$ just in case ‘p’ corresponds to the facts. How this correspondence is to be cashed out varies, of course, but we can see that it seems plausible in many clear cases. Consider the sentence ‘Bubbles is barking’: this sentence has a structure, whereby an action property—barking—is ascribed to an object—Bubbles. Plausibly, this sentence is true just in case Bubbles is barking: there is something—Bubbles—which answers to ‘Bubbles’, and something—barking—that answers to ‘barking’, and these things are in the right relation to each other, which corresponds to the structure of the sentence.¹¹

Deflationism about truth is the radical thesis that nothing more can be said about truth beyond the Truth Schema. (TS) is ‘all there is to say about truth’. ‘Bubbles is barking’ is true just in case Bubbles is barking, but we can say no more in general. Even if we can say more in this simple case, there will be no universally applicable formulation, like ‘corresponds to the facts’. In particular, any attempt to cash out a theory of truth in terms of robust metaphysical properties like correspondence to the

¹¹ For a classic statement of the correspondence theory, see Russell (2009).

facts, or inclusion in a maximal coherent set of sentences, will fail. Instead of such a robust rôle, truth has a mere *disquotational rôle*. The disquotational rôle is just the following: given the quote-name ‘p’ of a sentence p, using the truth-predicate we may *disquote* that sentence—remove the quotes—via (TS). For example, if we know that ‘grass is red’ is true, then we may use (TS) to disquote it: grass is red. In terminology due to Quine, truth is a device of semantic ascent: it allows us to talk about the truth of sentences, and thereby about the world, rather than talking about the world directly.

But if truth is just such a device, what use is either ‘true’ or the quote-name—why not just dispense with both, and keep the sentence in its disquoted form? The answer, as Blackburn and Simmons put it, is that “we do not always attach ‘true’ to the quote-name of a sentence”,¹² often because we don’t know the content of (and hence the quote-name of) the sentence in question. Horwich, who deals in propositions, puts it this way: ‘on occasion we may wish to adopt some attitude towards a proposition [...] but find ourselves thwarted by ignorance of what exactly the proposition is’.¹³ This can be made clearer with two examples: the use of ‘true’ with a definite description of the sentence in question, the use of ‘true’ to express logical generalisations.

Firstly, suppose that I am asking my fellow detectives about their interrogation of Jimmy the Squealer. ‘How did it go?’ I ask, and they say, ‘very well—Jimmy the Squealer finally said something true’. The disquotational rôle of ‘true’ is essential here—without it, or some other such device, my colleagues would have to assert an unlimited disjunction:

Jimmy said ‘David murdered British comedy’ and David murdered British comedy, or Jimmy said ‘ $2 + 2 = 4$ ’ and $2 + 2 = 4$, or ...

The use of ‘true’ here allows us to express something we would not otherwise be able to express, in finite time and with finite conceptual resources.

Secondly, suppose we wish to state a logical law, in particular the law of excluded middle ($p \vee \neg p$). Without truth, we face a similar problem: how to formulate an infinite

¹² Blackburn and Simmons (1999, p. 12).

¹³ Horwich (1990, p. 2).

conjunction like

Grass is green or grass is not not green, and bees eat cats or bees don't eat cats, and ...

But with the truth-predicate, we can express this in a finitary way:

Every sentence of the form 'p or not p' is true.

These cases show that truth plays an important logical rôle. So deflationism seems to be a coherent project: give a minimal theory of truth, on which (TS) is 'all there is to say about truth', and which can account for uses of 'true' like these. But there are several deflationisms, and we can sort them out by considering a distinction introduced by Bar-On and Simmons.¹⁴ They distinguish three forms of deflationism, so let's give a quick characterisation of each. *Linguistic deflationism* is a thesis about the (apparent) predicate 'is true'. *Conceptual deflationism* 'will also maintain that the concept of truth is a 'thin' concept that bears no substantive conceptual connections to other concepts to which it is traditionally tied'.¹⁵ *Metaphysical deflationism* is captured by the deflationary slogan that 'truth is not a (robust) property'.

I briefly want to mention two kinds of linguistic deflationism. There are accounts of truth on which 'is true' doesn't (despite appearances) function as a predicate. On the prosentential account,¹⁶ 'true' is a *prosentence* (in much the same way as 'he' is a pronoun). We shan't be focussed on such views, but on a milder kind of linguistic deflationism: that on which 'is true' is a predicate, but one which merely serves as a device of disquotation, and for the expression of infinite disjunctions like those above, and does not attribute a property.¹⁷

The most popular contemporary deflationary views of truth are due to Hartry Field and Paul Horwich. In this paper, we'll focus on the deflationary view of Hartry Field,

¹⁴ Bar-On and Simmons (2006).

¹⁵ Bar-On and Simmons (2006, p. 1).

¹⁶ Grover, Camp and Belnap (1975).

¹⁷ It might be wondered what, if any, entailment relations exist between kinds of deflationism we have discussed. This is interesting, but thorny, and beyond the scope of this paper.

known as ‘disquotationalism about truth’. Horwich’s account is similar, and I don’t think that the differences need detain us here.¹⁸ Field offers a concise statement of his account:

“Deflationism” is the view that truth is at bottom disquotational. I take this to mean that in its primary (“purely disquotational”) use,

- (1) ‘true’ as understood by a given person applies only to utterances that that person understands, and
- (2) for any utterance *u* that a person *X* understands, the claim that *u* is true is cognitively equivalent for *X* to *u* itself.¹⁹

Let’s say a little bit more about this. For Field, two sentences *a* and *b* are cognitively equivalent when (roughly) it is possible to infer from *a* to *b*, and from *b* to *a*.²⁰ This is of course to be relativised to the individual speaker: whether you and I can infer between the same sentences is dependent on our rules of inference. This speaker-relativity is one reason why Field restricts the truth-predicate to sentences in the speaker’s idiolect, a restriction thought by many to be counterintuitive and to omit many clear cases of truth-ascription.²¹ But it is in virtue of this cognitive equivalence that the instance of (T) involving the two sentences *u* and ‘*u* is true’ is analytically true for the speaker, or very nearly so.

Now that we have some truth background, let’s move on to vagueness.

Vagueness

In this section, I shall do two things: (i) introduce the phenomena of vagueness, and the Sorites paradox; (ii) try to work up a rigorous definition of vagueness. Then, in the next

¹⁸ The main differences are that Horwich deals in a suitably deflated notion of proposition, whereas Field works entirely in terms of sentences and utterances, and that for Horwich, possession of the concept of truth is marked by an *a priori* disposition to assent to instances of the T-scheme.

¹⁹ Field (1994, p. 405).

²⁰ See Field (1994, p. 405, n1): ‘I take cognitive equivalence to be a matter of conceptual or computational rôle: for one sentence to be cognitively equivalent to another for a given person is for that person’s inferential rules to license (or, license fairly directly) the inference from either one to the other.’ See the rest of this footnote for some subtleties, eg involving ambiguous sentences.

²¹ For example, when a translator one trusts tells one that a foreign statement is true. But this issue is not clearcut, and we won’t press it here.

section, we'll be in a position to see the space of theories of vagueness, and look at a prominent such account, the Supervaluationism of Kit Fine. The map ahead looks like this: vagueness and the Sorites are problematic, and many prominent and promising attempts to resolve these problems involve some departure from classical notions of truth or logic. But deflationary accounts of truth struggle with such accounts. That is the problem, and laying it out properly will take up the rest of this part of the paper, and most of the next part.

Vagueness and the Sorites paradox

It's easy to bring examples of vagueness to mind. Consider the predicate²² 'is tall': now, is a man 5 feet and 11 inches in height ('Alan'), tall? Intuitively, Alan is neither in the positive extension of 'is tall' (the class of things that are tall), nor in the negative extension of that predicate (the class of things that are not tall). But so far we have not raised that much of a problem: there are lots of things that are arguably in neither extension of that predicate: greenness, honour, and the flavour of tuna nigiri, for example. I am fairly confident in asserting that honour is in neither the positive extension nor the negative extension of 'is tall'. But Alan is different: unlike greenness and the flavour of tuna nigiri, Alan is the sort of thing that tallness applies to. With respect to 'is tall', Alan is a *borderline case*. The possession of such borderline cases seems to be characteristic of vagueness.

I now want to say two slightly controversial things about vagueness. Why controversial? Because they are both explicitly denied by some prominent accounts of the phenomenon of vagueness. So I shall add some caveats. If we remember to keep in mind that each of the claims might be false, that they are both superficially true helps us to get a grip on the phenomenon of vagueness. The first controversial claim is that vagueness is not an epistemic matter. If Alan is a genuine borderline case of 'is tall',

²² In this paper, for simplicity, we'll talk only in terms of vague *predicates*. It might be thought that there are vague nouns and proper names, too: where is the boundary of Mount Everest? But I think that the two cases are equivalent: the noun 'Mount Everest' is vague if and only if the predicate 'is on/in Mount Everest', ranging over points in space, is vague.

then no extra information could settle the question of whether he is tall or not. Caveat: famously, there are ‘epistemic’ accounts of vagueness, such as that due to Williamson.²³ On such views, there is—despite all appearances—a fact of the matter about whether Alan is tall or not tall, and similarly for all other borderline cases: all apparently vague predicates in fact have completely determinate extensions. So perhaps I should put my claim thus, to appease the epistemicist: there could be no information *which we are capable of processing into a determinate extension* about the predicate in question.

The second controversial claim is that vagueness is not a phenomenon of context-relativity. Note that Alan is not a borderline case of ‘is tall’ in some contexts: in Norway—assuming that the stereotype of Norwegians as unusually tall is true—he is clearly not tall. And in a land of short people, Alan is clearly tall. So it might be thought that vagueness is a contextual matter. But this isn’t quite right. To see this, note that even when the context is fixed, there are borderline cases of ‘is tall’: in the context of the United States, Alan is a borderline case of the predicate, and in Norway—where Alan is clearly not tall—there are *other* borderline cases of the predicate. (Perhaps in Svalbard someone 6’2” is a borderline case of ‘is tall’?) Caveat: there are contextualist accounts of vagueness. But the context-dependence at work there is much deeper and more subtle than that rejected here.²⁴

So let’s go on, with the following intuitive characterisation of vagueness in hand: a predicate is vague when it lacks a determinate extension, as shown by the presence of borderline case, and where this lack is neither due to context-relativity, nor to ignorance. A moment’s thought shows that many of the everyday predicates found in natural language are thus described. But what happens when such predicates are naïvely combined with the principles of classical logic? The Sorites paradox arises. Suppose that someone 200 cm in height (about 6’7”) is clearly tall, and that someone 50 cm in height (about 1’8”) is clearly not tall. Also suppose that a difference of 0.1 cm could never mean the difference between being tall and being not tall. Now we are ready to state the

²³ Williamson (1994).

²⁴ For a recent contextualist account, see Raffman (1994).

paradox:

Someone 200 cm in height is tall.

If someone 200 cm in height is tall, then someone 199.9 cm in height is tall.

So, someone 199.9 cm in height is tall.

If someone 199.9 cm in height is tall, then someone 199.8 cm in height is tall.

...

If someone 50.1 cm in height is tall, then someone 50 cm in height is tall.

Thus: someone 50 cm in height is tall.

We can derive two paradoxical results in this neighbourhood, one stronger than the other. In the weaker form of the paradox, for any given height, we may deduce that a person of that height is tall, with finitely many applications of modus ponens.²⁵ Let's look at another example, of Dummett's.²⁶ One heartbeat can't be the boundary between childhood and adolescence. And someone whose heart has only beaten once (since birth) is clearly a child—assuming that all infants are children—but with 946707779 applications of modus ponens we may deduce from these inoffensive premisses that someone turning thirty is a child.

The stronger result requires the use of mathematical induction,²⁷ and states that if *anybody* is tall, then *everybody* is tall. Keith Simmons has pointed out to me that induction here introduces another absurdity—consider again the 'is short' case. The use of induction not only allows us to derive the absurd result that someone 6 feet 3 in height—someone clearly in the negative extension of shortness—is short, but that *every* length measurement corresponds to a short person. Hence the extension of 'is short' infinitely outruns heights that humans can reach.

²⁵ Thanks to Keith Simmons for making this point clear to me.

²⁶ Dummett (1996, p. 109).

²⁷ By 'mathematical induction', I mean the form of inference that allows the move from $A(1)$ and $A(k) \rightarrow A(k + 1)$ to $\forall j A(j)$, in the natural numbers case.

A definition of 'is vague'

We have seen some characteristics of vagueness, and one paradox that can arise from the phenomenon. So let's try to provide a rigorous definition of 'is vague'. There are two prominent options: the possession of borderline cases, and *tolerance*. We shall look at both, and see an argument due to Crispin Wright²⁸ that the possession of blurred boundaries is insufficient for vagueness, and that the stronger requirement of tolerance obtains. I think that, for our purposes, this is not quite right: yes, tolerance is needed for the stronger property of being susceptible to the Sorites paradox, but the mere possession of borderline cases (especially in Wright's sense) is enough to cause the problems we want for the deflationary account of truth. This is because, as we will see, the real problem that vagueness presents for the deflationist is the existence of truth-value gaps; mere possession of borderline cases is enough to engender such gaps.

Let's outline Wright's argument. He claims that 'there is no clear reason why possession of borderline-cases should entail possession of blurred boundaries':²⁹ 'if, following Frege, we assimilate a predicate to a *function* taking objects as arguments and yielding a truth value as a value, then a predicate with borderline-cases may be seen simply as a partial such function—which is consistent with the existence of a perfectly sharp distinction between cases for which it is defined and cases for which it is not'.³⁰ Let's consider an example to see this. Consider the predicate 'C', ('child'), which ranges over humans. For all humans *h*, *C*(*p*) if *p* is under 17 years old, and not-*C*(*p*) if *p* is over 18 years old. The idea is that the predicate 'S' takes everyone under 17 to truth, and everyone over 18 to falsity. But people aged 17 are taken to neither truth nor falsity. They are borderline cases: the function corresponding to 'C' is partial, and not defined for 17 year-olds. But still, 'C' is not vague in the sense of engendering the Sorites paradox: it is not the case that if someone aged 16.9999 years is a child (in the sense defined), then someone aged 17 years is a child, for example. Here seems to be an example of

²⁸ Wright (1996, p.154).

²⁹ Wright (1996, p. 154).

³⁰ Wright (1996, p. 154).

the insufficiency of the possession of borderline cases for vagueness.

If the possession of borderline cases is insufficient for vagueness, let's consider instead an account of *tolerance*, also from Wright:

F is *tolerant* with respect to ϕ if there is some positive degree of change in respect of ϕ insufficient ever to affect the justice with which *F* applies to a particular case.³¹

We can now see that it is this phenomenon of tolerance which makes vagueness really paradoxical: it is the tolerance of the predicates appealed to in sorites cases that allows the inferences in question to go through ('one heartbeat could never mean the difference between being a child and not being a child').

The connection between vagueness and observationality is well-known: that is, it is well known that so-called 'observational' predicates (like 'is red', 'is tall', and 'is bald') are prone to vagueness. With some grasp of tolerance, it is possible to make this connection clear. Dummett argues³² that vague predicates are indispensable in our language, if that language is to capture the world; this is thanks to the non-transitivity of non-discriminable difference, in observational predicates. Let's decrypt this. The thought is that observational predicates are tolerant: in the case of 'is tall', for example, a difference in height of 0.001cm could never be the difference between being tall and not tall. In Wright's language, there is a difference (0.001cm) that is insufficient ever to affect the justice with which 'is tall' applies in a particular case: we would regard someone who describes a (given) person as tall, but his otherwise identical twin, 0.001cm shorter, as not tall (or even less definitely tall) as lacking linguistic competence with the predicate 'is tall'. This is at least in part because a difference in human height of 0.001cm is indiscriminable (to the naked eye), so it would be perverse for such a difference to justify a different application of the predicate 'is tall' in the two cases. But of course this indiscriminable-difference relation is intransitive: 1,000 such indiscriminable differences (ie, 1 cm) are together clearly discriminable.

³¹ Wright (1996, pp. 156–7).

³² Dummett (1996).

An example can serve to make this clear. Consider a device which produces sound at precisely a given, specified volume. There is a technician operating the device, and a test subject. On the device is a control panel is a device which allows the technician to select the sound volume that is pumped into some headphones worn by the test subject. The device is rather precise: the technician can control the sound volume to within 0.01 dB. Now, a sound difference of 0.01 dB is imperceptible to the human ear; thus the test subject will judge the sound of 30 dB and 30.01 dB to be the same volume. In other words, there is no discriminable difference between the two sound levels; write this as $\Psi(30, 30.01)$. Then we have $\Psi(30, 30.01), \Psi(30.01, 30.02), \dots, \Psi(34.99, 35)$. But it is clearly not the case that sounds of 30 dB and 35 dB are of non-discriminably different volume—the decibel scale is logarithmic, and an increase of 10 dB represents a doubling of loudness—in other words, $\neg\Psi(30, 35)$. So Ψ is intransitive.

But of course it is just that intransitivity which is one source of the paradox underlying the Sorites. For take a predicate F which is subject to such intransitive non-discriminable difference. Suppose that the predicate supervenes on a number ϕ , and that differences of $\delta\phi$ or less are non-discriminable in this way. Then we may say that ‘a difference of $\Delta\phi$ could never mean the difference between being F and not being F ’. As long as we have some ϕ_a which is clearly F , and some $\phi_b > \phi_a$ which is clearly not F , we have all that is required to generate a Sorites paradox:³³

$$\begin{aligned}
&F(\phi_a) \\
&F(\phi_a) \rightarrow F(\phi_a + \Delta\phi) \\
&\text{So: } F(\phi_a + \Delta\phi) \\
&\dots \\
&F(\phi_b - \Delta\phi) \rightarrow F(\phi_b) \\
&\text{Thus: } F(\phi_b)
\end{aligned}$$

We can thus see that to eliminate vagueness from our language would be to get rid of something important. Our perceptual structure is such that the intransitivity of non-discriminable difference arises naturally. But this phenomenon leads almost immediately to the Sorites paradox. So if we are to keep the ability to describe the world ‘as

³³ ‘ \rightarrow ’ is throughout used for the material conditional.

we see it', but to avoid paradox, we need an account of vagueness which allows for the problematic intransitivity, without bringing the Sorites along.

So here we have an argument that borderline cases are insufficient for vagueness—but we have seen that tolerance is at the heart of vagueness, and what leads to the Sorites. Wright's argument of course rests on a possibly controversial Fregean account of predicates, and this is the point where it would be natural to press him if we wanted to resist the conclusion that something more than borderline cases is needed. But I don't think that this need matter: as we mentioned, all we really need to get the problem up and running for the deflationist is the existence of truth-value gaps.³⁴

In this first part of the paper, we have been introduced to vagueness and deflationism about truth. In the next part, I will argue that these issues can face some conflict.

PART 2: DEFLATIONISM AND ACCOUNTS OF VAGUENESS

On the face of it, vagueness represents a real problem: ascriptions of vague predicates to their borderline cases seem to be truth-valueless,³⁵ and the Sorites lets us derive a contradiction from minimal premisses. In this part of the paper, we will introduce the space of theories of vagueness, and see how one prominent theory—Supervaluationism—is not cotenable with deflationary accounts of truth.

We may group theories of vagueness into three categories: classical, non-classical and semi-classical.

Classical theories of vagueness try to preserve the classical rules of logic. A very prominent version of this kind of theory is Timothy Williamson's epistemicism.³⁶ On

³⁴ The relationship between borderline cases and vagueness is perhaps subtle, and beyond the scope of this paper: suffice it to say that borderline cases *seem* to be a necessary condition for vagueness. So for the rest of this paper, I shall gloss over the distinction, except where to do so would get in the way of clarity.

³⁵ By 'truth-valueless', I here mean lacking a single, classical truth-value: this is intended to include both gluts and gaps, for example.

³⁶ See Williamson (1994).

this view, vagueness is ignorance: vague predicates like ‘is tall’ *do* have sharp boundaries of correct application—there is a cutoff such that someone k cm in height is tall, but someone $(k - 0.0001)$ cm in height is not tall—but we are ignorant of these cut-offs, and perhaps necessarily ignorant of them. Epistemicism is congenial to the deflationist: classical truth conditions are preserved, and as we shall see, this helps the deflationist enormously.

But many have found epistemicism implausible. One objection runs like this: let’s plausibly assume that meaning supervenes on use. What this means is that the meanings of words like ‘tall’ are (somehow—supervenience is a slippery notion) dependent on the way we use them. But if epistemicism is right, then vague predicates have semantic content (ie, sharp boundaries of correct application) that we are ignorant of, perhaps in principle. It is a tough pill to swallow that the meaning of ‘tall’ supervenes on our use of that word, yet remains entirely inaccessible to us. Now, the epistemicist has a response to this. He responds that perhaps the use-meaning relation is simply too complex for us to understand. Given the complexities of the philosophy of language, is there any reason to expect *a priori* that we should be able to grasp all the output of the function by which meaning supervenes on use? But the felt implausibility remains, and the epistemicist is playing defence here—he’s trying to explain away the apparent implausibility of us being ignorant of facts which supervene on our own language use.

Other than classical accounts, there are theories that involve revision to classical logic. We may classify them by how radical a revision they require. The most radical, *non-classical* accounts of vagueness either embrace the assertion of outright contradictions, via the denial of a specific instance of excluded middle, or they deny the validity of De Morgan’s law³⁷ or double-negation elimination. Non-classical accounts fall into two groups: ‘glutty’, and ‘gappy’. For the glutty (or dialethic) non-classicist, sentences ascribing vague predicates to borderline cases are both true and false—the assertion of an outright contradiction. For the gappy theorist, the sentences are neither true nor not true. There are two things to notice about gappy accounts. First, they do seem to capture

³⁷ $\neg(p \vee \neg p) \leftrightarrow \neg p \wedge \neg \neg p$

something about the way we talk about vague predicates: ‘well, she’s not *rich*, but she’s not *not rich*, either’. Secondly, gaps lead to contradictions as surely as do gluts, if the classical rules of logic are maintained: from $\neg(p \vee \neg p)$, we may infer $\neg p \wedge \neg \neg p$ by De Morgan’s law, and from this, $p \wedge \neg p$ by double-negation elimination.

Since they involve either the assertion of outright contradictions, or the abandonment of De Morgan’s law, or the abandonment of double-negation elimination, many have found non-classical accounts of vagueness implausible, too.

Semi-classical accounts of vagueness involve some departure from the classical rules, but avoid the assertion of outright contradictions. They involve something like intuitionistic logic, where the law of excluded middle³⁸ is not asserted, but no specific instance of excluded middle is denied. There are several sorts of semi-classical theories, including degrees of truth views, and fuzzy logic views. These typically involve the addition of ‘extra truth-values’—whether one, intermediate, truth-value, or continuum many, in the range $[0,1]$, where ‘0’ represents complete falsity, and ‘1’ complete truth. The most prominent semi-classical account of vagueness is Supervaluationism.³⁹ We’ll take this account of vagueness as a representative of semi-classical views, since it is both prominent and widely-held, and its consequences have been worked out in some detail.

Supervaluationism

Let’s see the core idea of Supervaluationism in slogan form, before moving on to a more detailed account. The main point is this: consider a vague predicate, like ‘is tall’, the application of which is determined by the height of the person in question. We decided that someone 200 cm in height is clearly tall, and someone 50 cm in height is clearly not tall. One way to overcome the vagueness of ‘is tall’ (and hence defeat the Sorites) would be to stipulate a sharp cut-off of n cm—epistemicist-style—such that those greater in height than n cm are tall, and those lower in height than n cm are not

³⁸ Excluded middle states that $p \vee \neg p$.

³⁹ The locus classicus is Fine (1975).

tall.⁴⁰ But subject to the requirement that these clear cases must be respected, there are many places where the cut-off might be made—there are many ways in which the predicate might be made precise, or *sharpenings* of the predicate. Call ways of drawing the cut-off that respect the clear cases ‘admissible’ sharpenings. The central claim of Supervaluationism is this: statements using a vague predicate are true just in case they are true on all admissible sharpenings of the predicate in question.

Think again about the ‘is tall’ case: remember that someone 200 cm in height is clearly tall, and someone 50 cm in height is clearly not tall. Further, suppose that people only range in height from 50 cm to 200 cm. Suppose that the first borderline case of the predicate is at 165 cm (5.4 feet), and the last borderline case is at 180 cm (5.9 feet).⁴¹ So the positive extension of ‘is tall’ extends from 180 cm to 200 cm, the negative extension extends from 50 cm to 165 cm, and the penumbra (the region of borderline cases) extends from 165 cm to 180 cm.

Supervaluationism proceeds thus: the given predicate, with the borderline cases, is the *base point*, and we may consider *admissible sharpenings*: those predicates which assimilate some of the borderline cases to either the positive or the negative extensions, in a way that respects the clear cases. We proceed until we reach *complete and admissible sharpenings*: admissible sharpenings such that there are no remaining borderline cases. Now, there may be many complete and admissible sharpenings of a vague predicate (there are continuum many, in the case of ‘is tall’): a sentence using a vague predicate like ‘is tall’ is true just in case it is true on all those sharpenings. Thus, ‘someone 170 cm in height is tall’ will not be true, on this view, since there are complete and admissible sharpenings where 170 cm falls in the negative extension. But ‘everyone is either tall or not tall’ will be true since, whichever complete admissible sharpening we consider—wherever the borderline between tall and not tall is drawn—everyone will lie on one side or the other of it.

Let’s now give the theory in more detail. As we mentioned, the truth-values for

⁴⁰ Provision would have to be made for contextual variation.

⁴¹ You might object that this is illegitimate, since the placement of the ‘first borderline case’ is also vague. This is the problem of second-order vagueness.

sentences that use vague predicates are determined by facts about the ways in which those predicates might be sharpened. Crucial to this is the idea of a *specification space*: ‘Then the suggestion is that truth-valuation be based, not on the appropriate specification, but upon an appropriate specification space, ie upon the specification-points that correspond to the different ways of making the language more precise.’⁴² Let’s start working through this. I will lay out the most natural case, and gloss over some of the complexities. In this case, the specification points correspond to the sharpenings/precisifications.

We begin with a vague predicate. A specification space for that predicate is a set of (specification) points, and a partial ordering \geq (‘extends’)⁴³ on that set. The specification points correspond to sharpenings of the predicate in question, beginning with the *base point*, which corresponds to the vague predicate as given, and ‘corresponds to the precisification of which all other precisifications are extensions’.⁴⁴ In the case of a vague predicate, the base point will correspond to a predicate with a given negative extension, a given positive extension, and some borderline cases. Then, intuitively, one sharpening of the predicate in question (more accurately, the specification point to which the sharpening corresponds) extends another just in case it assimilates some of the borderline cases to either the positive or the negative extension of the predicate, but preserves those cases which are already in the positive or negative extension. This is formally expressed by the Stability requirement that classical truth-values are preserved under the ‘extends’ relation:

Stability: if A is true at t , and $t \leq u$, then A is true at u ,⁴⁵
if A is false at t , and $t \leq u$, then A is false at u .

Finally, there are the complete specification points: formally, these are the sharpenings where the borderline cases have been entirely eliminated. The predicate corresponding

⁴² Fine (1975, p. 271).

⁴³ ‘ \leq ’ denotes the is-extended-by relation.

⁴⁴ Fine (1975, p. 272)

⁴⁵ That is, if a sentence A is true at a point t , and u extends t , then A is true at u .

to a complete specification point is not vague, and thus truth-values at such points are classical. The condition of Completeness requires that any point in the space (including the base point) can be extended to a complete point:

Completeness: $(\forall t)(\exists u \geq t)(u \text{ complete})$

In the case of vague predicates, there will normally be many complete specification points which extend the base point: they correspond to the many ways in which the vague predicate might be made more precise, whilst respecting the existing clear cases.

With this formal machinery in place, the supervaluationist can now do two things. He wishes to give classical truth-conditions for sentences using vague predicates, and to resist the Sorites. Let's take them in turn. There are two notions of truth at play—truth in a sharpening, and super-truth—which the Supervaluationist seeks to capture:

... a sentence is true (or false) at a partial specification point if and only if it is true (or false) at all complete extensions. A sentence is true simpliciter if and only if it is true at the appropriate specification-point, ie at all complete and admissible precisifications. Truth is super-truth, truth from above.⁴⁶

For consistency, we'll refer to classical truth in a complete specification as 'specification-truth'. Note that, for a complete and admissible sharpening (ie, for a non-vague predicate), super-truth and specification-truth will coincide. Suppose that 'F' is such a non-vague predicate, and consider the sentence 'x is F':

'x is F' is specification-true
 \leftrightarrow 'x is F' is true on all complete and admissible sharpenings (since
 'F' itself is the only such)
 \leftrightarrow 'x is F' is super-true

Fine claims that 'the supertruth theory makes a difference to truth, but not to logic'.⁴⁷ I think the thought is this: though the Supervaluationist introduces a new truth-definition,

⁴⁶ Fine (1975, pp. 272–3).

⁴⁷ Fine (1975, p. 284).

the rules of classical logic are not substantially revised. In particular, ‘the consequence-relation is classical for the language at hand’,⁴⁸ and ‘there is no special logic of vagueness’.⁴⁹ Of course it is not quite that simple—the idea is that truth relative to a complete specification lacks truth-value gaps, and has classical truth-conditions since the predicate in question is no longer vague. But super-truth (relative to the space) will have truth-value gaps (many sentences will be neither true on all complete and admissible sharpenings, nor false on all complete and admissible sharpenings), and non-classical truth-conditions hold for ‘or’ and ‘not’. There is no *single* truth-predicate which has both truth-value gaps, and the classical truth-conditions for ‘or’ and ‘not’.

It is clear how the supervaluationist seeks to resist the sorites: the second, inductive, premiss is false, and ‘this is because a hair splitting n exists for any complete and admissible specification of ‘is bald’.’⁵⁰ Though this is clearly a positive move, the following fact about the supervaluationist solution to the Sorites is worth noting. Take a vague predicate, like ‘child’. Now, each complete and admissible sharpening of ‘child’ will be such that there is a boundary between ‘child’ and ‘not a child’, so the sentence ‘there is a number n , such that after n heartbeats I am a child, but after $n + 1$ heartbeats I am not a child’ is true. (This of course is how the supervaluationist seeks to resist the Sorites, since it constitutes a denial of that argument’s second premiss.⁵¹) But since the location of this borderline is different at each precisification, the sentence ‘after k heartbeats I am a child, but after $k + 1$ heartbeats I am not a child’ is not true for each k . (This is how the supervaluationist seeks to preserve our intuition that ‘child’ lacks a determinate borderline.) So, writing ‘ $A(x)$ ’ for ‘after x heartbeats, a person is a child’, the supervaluationist is committed to asserting both that ‘ $\exists n(A(n) \wedge \neg A(n + 1))$ ’ is true, and that ‘ $A(k) \wedge \neg A(k + 1)$ ’ is not true for each k .⁵²

⁴⁸ Fine (1975, p. 284).

⁴⁹ Fine (1975, p. 284).

⁵⁰ Fine (1975, pp. 285–6).

⁵¹ Things are a little more complicated than this. There are two ways of stating the ‘inductive step’ of a Sorites argument: as an universal quantification expressing the tolerance of the vague predicate in question (‘ $\forall n(F(n) \rightarrow F(n + \delta n))$ ’), and as a series of indicative conditionals (‘ $F(k) \rightarrow F(k + 1)$ ’, ‘ $F(k + 1) \rightarrow F(k + 2)$ ’, ...). The supervaluationist can resist both: the universal quantification is not true, because one of the individual instances is not true.

⁵² Here, truth is super-truth. Notice that if ‘ n ’ ranges over a finite domain, these claims are together

We feel two intuitions about the Sorites cases. We feel that it is an essential fact about the predicates in general that they lack sharp, ‘hair-splitting’ boundaries. But we also feel that the result of the Sorites argument is absurd. The Supervaluationist account manages to respect both of these intuitions, and this is no mean feat.

Deflation and Supervaluation

We have been introduced to deflationary accounts of truth, to the phenomenon of vagueness, and to one problem that phenomenon brings—the Sorites paradox. We have also seen that Supervaluationism is a popular representative of one class of theories of vagueness, the semi-classical accounts, and successfully deals with the Sorites paradox without too much intuitive cost. But Supervaluationism is incompatible with deflationism about truth.

Recall that there are two truth-predicates in play, for the Supervaluationist:⁵³ specification-truth and super-truth. A main difference is that the super-truth predicate accommodates gaps:

If truth is super-truth, ie relative to a space, then the [classically] necessary truth-conditions for ‘or’ and ‘not’ fail, though truth-value gaps can exist. If on the other hand, truth is relative to a complete specification then the truth-conditions hold but gaps cannot exist.⁵⁴

Recall also that, for the deflationist, the Truth Schema is all there is to say about truth. We’re going to see two reasons why, if Supervaluationism is right, the Schema can’t be all there is to say. Thus, deflationism is incompatible with Supervaluationism.

The first reason is the more direct. This is that, for the Supervaluationist there are two distinct truth-predicates for sentences that use vague predicates, one of which—supertruth—is constructed out of the other—truth in a complete specification—and looks not at all deflationary. As for the deflationist creed that (TS) is all there is to

inconsistent even in intuitionistic logic.

⁵³ Throughout this section, I’ll talk in terms of truth-predicates. If you prefer, you may substitute talk of notions of truth.

⁵⁴ Fine (1975, p. 284).

say about truth, we now seem to be a long way from such parsimony. If—as the deflationist contends—truth is a merely logical device of disquotation, whose content is exhausted by (TS), then how can the existence of *two* such logical devices be tolerated? It is also hard to see how the super-truth predicate could be squeezed into the ‘mere device of disquotation’ box.

To see the thickness of the super-truth predicate, note that for the deflationist, for any sentence ‘p’, ‘p is true’ is cognitively equivalent to ‘p’: informally, asserting that ‘p’ is true adds no content to the assertion that p, since they licence the same inferences. But if the predicate in play is super-truth, then for the Supervaluationist ‘p’ is true just in case ‘p’ is specification-true on all complete and admissible precisifications of the vague predicates used in ‘p’. So the Scheme (TS) is most certainly not ‘all there is to say’ about super-truth.

This problem is direct—we see immediately why deflationism struggles with super-truth, since super-truth appears to go beyond the Truth Schema—but somewhat general. It is general in that it leaves the door open for a deflationist response to the claim that not all the features of the super-truth predicate can be explained by the Schema—though it is hard to see how such a response might go—and we would be better off deriving an outright contradiction.

A perhaps more pressing problem is that super-truth is gappy: there are sentences which are neither supertrue nor superfalse. This can happen when a sentence uses a vague predicate, and the sentence comes out specification-true on some complete and admissible specifications—complete and admissible sharpenings, or ways of making the predicate in question more precise—but specification-false on some other complete and admissible specifications. Let’s look at an example. The vague predicate ‘is bald’, and suppose that Jessica is a borderline case of baldness. On the Supervaluationist view, the sentence ‘Jessica is bald’ is *neither* super-true, *nor* super-false, since she is bald on some complete and admissible precisifications of ‘is bald’, and not bald on others. So Supervaluation engenders a truth-predicate—super-truth—which has truth-value gaps.

We have seen (i) that the Supervaluationist super-truth predicate is gappy. Now,

we need to show (ii) that deflationary theories of truth struggle with gaps. Let's see why this is so. Suppose that a sentence 'p' is gappy: this means that 'p' is neither true nor false, so by stipulation, 'p' is not true. As we have seen, this can happen with the Supervaluationist super-truth predicate. This is easily done with our example. Let's form an instance of the T-scheme:

(false \rightarrow) 'Jessica is bald' is true *iff* Jessica is bald (\leftarrow gappy)

The left hand side of this biconditional is *false*,⁵⁵ and the right hand side is *gappy*—by stipulation, not false. So the biconditional is not true, and a gappy sentence represents a counterexample to the Truth Schema. So to accommodate such a gappy truth-predicate, more will have to be said. But since the Schema is 'all there is to say about truth' for her, this option is closed to the deflationist. Deflationism cannot, on the face of it, handle truth-value gaps.

Let's review. I have given two reasons to think that the deflationist about truth can't handle Supervaluationism about vagueness. The super-truth predicate is robust, and seems to bring more cognitive content to the table than mere disquotation. Secondly, the super-truth predicate is gappy, and deflationism struggles to accommodate truth-value gaps.

Of course, Field is under no illusions about the existence and utility of non-disquotational truth-predicates, and offers the following general prescription:

the deflationist allows that there may be certain extensions of the purely disquotational truth predicate ... but he requires that *any other truth predicate be explainable in terms of the purely disquotational one, using fairly limited additional resources*.⁵⁶

The deflationist response would go something like this: if we can show that the super-truth predicate can be explained using the specification-truth predicate, using 'fairly limited additional resources', and it can be shown that the specification-truth predicate

⁵⁵ Since, if the sentence 'Jessica is bald' is gappy—ie, neither true nor false—then by stipulation the sentence is not true.

⁵⁶ Field (1994, p. 406).

is purely disquotational, then the deflationist can handle Supervaluationism. But can the strategy evinced work—can supertruth be explained in terms specification-truth, where the latter is given a respectable disquotational status? I think it cannot.

The problem is that the basic notion—specification truth—is also not purely disquotational. Remember that a truth-predicate ‘X’ is purely disquotational just in case

$$X(p) \text{ iff } p$$

holds as a matter of cognitive equivalence, and captures everything about the predicate ‘X’, for any sentence ‘p’. But if the truth-predicate is ‘T*’—specification-truth—then for an arbitrary sentence ‘A’,

$$T^*(A) \text{ iff } A$$

doesn’t hold. Instead you get:

$$T^*(A) \text{ iff there is a complete and admissible specification where } A \text{ is classically true,}$$

ie,

$$T^*(A) \text{ iff for some complete and admissible specification, } T(A).^{57}$$

So the specification-truth predicate can be built out of disquotational truth and the notion of a complete specification, but it is not itself disquotational. This route to making Supervaluationism play well with deflationism about truth is blocked. In the next part of the paper, we’ll consider another route the deflationist might take—are there other accounts of vagueness more consonant with deflationism about truth?

⁵⁷ Where ‘T’ is the classical purely-disquotational truth-predicate.

PART 3: NEW ACCOUNTS OF VAGUENESS WON'T HELP

We have seen that the obvious route to making Supervaluationism safe for deflationism about truth fails. This is a problem for the deflationist: as we have seen, vagueness is a central phenomenon of language, and Supervaluationism is a successful and plausible theory of that phenomenon, and the most prominent representative of the *semi-classical* accounts thereof. As a semi-classical account, Supervaluationism involves some departure from classical logic. But it seems that deflationary views of truth can't accommodate these non-classical features of Supervaluationism, so the next move for the deflationist seems obvious—look for another account of vagueness.

In this part, we'll look at two ways this could go. Field explicitly offers a deflationism-safe account of vagueness. Independently, a very recent account of borderline cases is due to Raffman. I'll look at them in detail, and argue that though both are safe for the deflationist, they are both implausible.

Field on vagueness

Let's look at Field's account of vagueness.⁵⁸ We first need to introduce two notions of truth: *weak truth* and *strong truth*. Roughly, a weak-truth ascription to a sentence q inherits the truth-value of q , even if q is gappy—akin to a generalised version of the Truth Schema—whereas a strong-truth ascription to a sentence q is true just in case q is true.

Field's account of vagueness proceeds by taking weak truth—which, on his characterisation, is purely disquotational—and constructing strong truth from it, together with some extra resources.

Field's weak truth predicate ' T_w ' is purely disquotational. The law of excluded middle holds for ' T_w ', and 'is true'—when referring to this weak truth predicate—is

⁵⁸ Field (1994).

also a vague predicate:

if it is indeterminate whether Jones is bald then it is equally indeterminate whether ‘Jones is bald’ is true ... on the weak notion of truth (and classical logic), both ‘Jones is bald’ and ‘Jones is not bald’ are borderline cases of truths.⁵⁹

But Field’s other truth-predicate—his strong truth predicate ‘ T_s ’, defined by

(FST) $T_s(p)$ *iff* $T_w(\text{definitely } p)$,

is *not* purely disquotational, and is gappy. For a sentence ‘ p ’, ‘ p ’ is strongly true just in case it is (weakly) true that definitely p . And for a sentence ‘ q ’, ‘ q ’ is strongly false just in case ‘ $\neg q$ ’ is strongly true:

‘ q ’ is strongly false *iff* $T_s(\neg q)$ *iff* $T_w(\text{definitely } \neg q)$,

Thus the strong-truth predicate ‘ T_s ’ will be gappy for borderline cases. Let’s take some examples to see all this:

1. Let Sarah be a clear negative case of ‘is tall’: she is not tall, and not a borderline case of ‘is tall’—Sarah is definitely not tall.
2. Let Keith be a borderline case of ‘is tall’—Keith is neither definitely tall, nor definitely not tall.
3. Let Will be a clear positive case of ‘is tall’: he is tall, and not a borderline case of ‘is tall’—Will is definitely tall.

What happens when we apply the weak and strong truth-predicates to these two cases? Take Sarah, first. The sentence ‘Sarah is tall’ is both weakly and strongly false. Since Sarah is not tall, the sentence is weakly/disquotationally false, and since it is weakly true that ‘definitely, Sarah is not tall’, the sentence is strongly false. The sentence ‘Will

⁵⁹ Field (1994, pp. 413–414).

is tall' is both weakly and strongly true. Since Will is tall, 'Will is tall' is weakly/disquotationally true, and since it is weakly true that 'definitely, Will is tall', the sentence 'Will is tall' is strongly true.

The difference between the truth-predicates comes out when we consider cases in the penumbra of 'is tall'—borderline cases—and apply the truth predicates there. The case of Keith—a borderline case of 'is tall'—will help to illuminate this. The weak-truth predicate ' T_w ' inherits the vagueness of 'is bald', but the law of excluded middle holds for ' T_w ', so we have that

$$T_w(\text{Keith is tall}) \vee T_w(\text{Keith is not tall}),$$

but 'definitely Keith is tall' is weakly false, and 'definitely Keith is not tall' is weakly false:

$$\neg T_w(\text{definitely Keith is tall}) \wedge \neg T_w(\text{definitely Keith is not tall}).$$

So where truth is the strong-truth predicate ' T_s ', there is a truth-value gap: 'Keith is tall' is *neither* strongly true, *nor* strongly false. Using a pretheoretical notion of truth, we may bring out the difference between weak and strong truth. Consider the following sentence

(K) ' T (Keith is tall)'

Is (K) true, pretheoretically? It depends on what ' T ' means. If ' T ' means *weak* truth, then (K) is a gappy sentence—when predicated of a borderline case, weak truth inherits the gappiness of that case. But if ' T ' means *strong* truth, then (K) is a false sentence—since by stipulation, 'Keith is tall' is neither strongly true nor strongly false.⁶⁰

Strong truth is not purely disquotational: notice that the definition (FST), above, of Field's strong-truth predicate is most certainly not the Truth Schema (TS). But is Field's account disquotationally respectable? Yes. The basic, weak truth-predicate ' T_w '

⁶⁰ Thanks to Keith Simmons for making me see this point.

is purely disquotational (since $T_w(p) \text{ iff } p$). The strong truth-predicate ' T_s ' is not purely disquotational—in particular, it allows for truth-value gaps in borderline cases—but it is constructed out of the disquotational weak truth-predicate with fairly limited additional resources: just the notion of the definite case.

Nevertheless, I think that Field's attempt to give an account of vagueness which is congenial to the deflationist fails. There are two reasons to think this: the ad hocness and implausibility of a primitive 'definitely' operator, and the thought that the strong truth-predicate T_s is really the more basic of the two, something which Field's account fails to respect. Let's take them in turn.

Firstly, and famously, Field appeals to the notion of definiteness as one of his 'fairly limited additional resources':

I think that the only reasonable course, for the deflationist who is unwilling to revise classical logic in the radical way just mentioned, is to grant that we understand an operator 'definitely' (or 'determinately'), where 'definitely p ' is a strengthening of ' p ', but to reject the explanation of it in terms of truth or satisfaction.⁶¹

It might be wondered why Field rejects an explanation of definiteness 'in terms of truth or satisfaction', but instead tries to defend it as a primitive notion. The answer is that to do otherwise would be to expose himself to charges of vicious circularity.

It would be viciously circular for a deflationary account of truth and vagueness to include, in its characterisation, an appeal to some notion which is itself explained in terms of truth. How would a definition of 'definitely' go? There seem to be two options: 'definitely' could be defined in terms of strong truth, or in terms of clear cases (ie, non-borderline cases). Both are blocked—let's see how. First, we have that

definitely $p \text{ iff } T_s(p)$,

so could the definiteness operator be explained in terms of strong truth? Clearly not, since the strong truth predicate is itself explained in terms of the definiteness operator—

⁶¹ Field (1994, p. 411).

this would be viciously circular. What about our second option? We might explain definiteness in terms of clear cases:

x is definitely F *iff* x is a clear case of F

But we can cash out ‘x is a clear case of F’ as ‘x is F, and x is not a borderline case of F’. So we would have that

x is definitely F *iff* x is F, and x is not a borderline case of F,

but the concept of *not being a borderline case* will require the resources of our theory of vagueness to explain. And since the definiteness notion is required for that account of vagueness, to appeal to the account of vagueness in its definition is once again viciously circular.

It seems that Field is left with definiteness as primitive. And yet it seems outrageously extravagant for Field to help himself to a primitive ‘definitely’ operator. Besides the inherent implausibility of this tack, we shall see in our next consideration against Field that it seems unmotivated. So let’s suppose for the moment that Field may help himself to primitive definiteness.

Let’s move on to the second consideration—is strong truth the more basic notion? The structure of this objection runs thus: Field needs to—and does—say that the strong truth predicate is built from the weak truth predicate (which is unproblematic), and from the primitive definiteness operator, which we are for the moment allowing him to help himself to. Recall the definition of strong truth for vagueness: $T_s(p)$ *iff* $T_w(\text{definitely } p)$. So Field’s strong truth-predicate ‘ T_s ’, which can handle truth-value gaps admirably, is tied to vagueness—or at least, to areas where definiteness may naturally be appealed to.

But strong truth—a truth-predicate which yields a false sentence when predicated of a gappy sentence—pops up in many more areas than vagueness, many of which seem immune to the notion of definiteness.⁶² Let’s look at a couple of examples. The

⁶² Thanks once more to Keith Simmons for impressing this point upon me.

classical problem of the open future—‘there will be a sea battle tomorrow’—seems to invite a strong truth predicate, since if such a sentence about the future is gappy, then an utterance describing that sentence as true is false. Others include: category mistakes like ‘the flavour tuna nigiri is tall’; liar-sentences like

(A) ‘(A) is not true’;

failures of presupposition like ‘the King of France is not sitting in this chair’;⁶³ some sentences about fiction like ‘Sherlock Holmes had an even number of head-hairs’. Wherever there are truth-value gaps, and we wish to say that a sentence *q* is gappy—neither true nor false—and ‘*a fortiori* not true’, so that the truth-ascribing sentence ‘*q* is true’ seems false (and *not* gappy), we appear to be using a notion of strong truth. And as we have seen, truth-value gaps like this arise in very many places beyond vagueness.

But if Field wants to explain this, he must start all over again with the purely disquotational truth predicate, and ‘fairly limited additional resources’, and definiteness seems unavailable in many of these discourses. Strong truth appears to be an entirely general phenomenon, but Field seems committed either to claiming that it is local to vagueness, or to an unwieldy programme of constructing a strong-truth predicate for each discourse—perhaps introducing many more extravagant ‘primitive’ operators.

Let’s wrap up this section. We have seen that Field’s attempt to provide such an account, which is friendly to the deflationist, is implausible on its own terms: the deflationist is forced on pain of circularity to suggest that the ‘definitely’ operator is primitive. And even granting this, for the sake of argument, doesn’t get us very far. It might be thought that *strong* truth is really the more fundamental notion, since it pops up in places where ‘definite’ doesn’t.

Raffman’s new theory of vagueness

Let’s look at another account of vagueness—due to Diana Raffman—which purports to save classical logic. This might be thought to bring a helping hand to the deflation-

⁶³ Example shamelessly stolen from Holton’s talk.

ist: recall that a main deflationary problem with Supervaluationism is the non-classical nature of super-truth.

First we'll look at Raffman's account, and wonder whether it really is more congenial to the deflationist.

I will argue that though very deflationarily-friendly, Raffman's theory is counterintuitive in many ways. This seems to be a problem for the deflationist: is the only way a view can be congenial to deflationism, to be wholly implausible?

Diana Raffman offers a new account of borderline cases.⁶⁴ This account departs from her earlier contextualist account of vagueness,⁶⁵ and purports to save classical logic. One thing to note is that she presents this not as an account of vagueness, but of *borderline cases*. As we saw above, how to characterise vagueness is not obvious, and perhaps the mere possession of borderline cases is insufficient for vagueness. But we also saw that the possession of borderline cases *is* intimately connected with vagueness, and perhaps a necessary condition. In any case, the mere possession of borderline cases is sufficient to engender truth value gaps, and thus to raise problems for the deflationist, so I don't think this subtlety need concern us.

Raffman's new 'incompatibilist' view aims to do two things: to offer an account of borderline cases 'that fits comfortably with a classical logic and semantics',⁶⁶ and to reject the idea—allegedly common to all versions of what she calls the 'Standard Analysis'—'that borderline cases are to be understood in terms of the opposition between a predicate and its *negation*':⁶⁷

Among other things, the incompatibilist denies, whereas the standard analysis entails, that borderline cases for ' ϕ ' are borderline cases for ' $\neg\phi$ '.⁶⁸

Now we know what Raffman is trying to do, let's try to see how she does it. She first distinguishes between 'contraries' and 'incompatibles' as two different classes of

⁶⁴ Raffman (2005).

⁶⁵ Raffman (1994).

⁶⁶ Raffman (2005, p. 2)

⁶⁷ Raffman (2005, p. 2).

⁶⁸ Raffman (2005, p. 6).

predicate. Call two predicates ‘contraries’ if they can’t both be true of, but can both be false of, the same object. Thus ‘is a natural number less than 5’ and ‘is a natural number equal to or greater than 5’ are contrary predicates, as are ‘is enrolled only at UNC’ and ‘is enrolled only at Duke’. We may then define *incompatible predicates* thus:

...incompatible predicates ‘ ϕ ’ and ‘ ϕ^* ’ are contrary predicates such that some linear ordering of items on a distinct dimension D, decisive of the application of both ‘ ϕ ’ and ‘ ϕ^* ’, is both a ϕ -ordering and, conversely, a ϕ^* -ordering. (Call such an ordering a ϕ/ϕ^* ordering.)⁶⁹

Let’s look at an example. The idea is that there is a linear ordering of items along a dimension. Humans may be ordered by height, for example, or heads ordered by some measure of number and distribution of head hairs. Let’s think again about the height case: consider the dimension consisting of the number of centimetres in height a person is, and order people from smallest to largest. Now, consider two contrary predicates: ‘is very tall’ and ‘is very short’. The dimension—height in centimetres—is completely decisive of the application of these two predicates, since no extra information beyond their value along the dimension could be relevant (let’s suppose). ‘Is very tall’ and ‘is very short’ are contrary predicates, since they can’t both be true of, but might both be false of, the same person. The two predicates may be represented as coloured regions along the line of people: ‘is very tall’ will apply to some people on the right-hand side, and ‘is very short’ will apply to some on the left, but they will not overlap. The height ordering is an ‘is very tall’/‘is very short’ ordering.

With this definition in hand, Raffman claims that ‘... borderline cases may be definable in terms of an opposition between incompatible predicates rather than contradictory ones.’⁷⁰ I’ll briefly summarise how this goes. First to be noted is that not all pairs of incompatibles share borderline cases—nothing is borderline between ‘is tiny’ and ‘is huge’ for example—we require a final definition, that of the *proximate incompatible*:

two predicates ‘ ϕ ’ and ‘ ϕ^* ’ are proximate incompatible just in case they are incompatible predicates, and there is some item x whose value on the

⁶⁹ Raffman (2005, p. 8).

⁷⁰ Raffman (2005, p. 7).

dimension D provides some equal positive justification for applying either ‘ ϕ ’ or ‘ ϕ^* ’ to x .

For example, it’s plausible that ‘is a medium-length book’ and ‘is a long book’ are proximate incompatibles in this sense (even ignoring contextual variation and such): they are incompatible predicates whose application is (let’s suppose) decided by the number of pages in a book, when printed in a standard way. Then my novel’s length (650 pages) provides some equal justification for applying either predicate. Then:

As a first approximation, let us say that borderline cases for vague predicate ‘ ϕ ’ are items that belong to a ϕ/ϕ^* ordering but are neither definitely ϕ , nor definitely ϕ^* , where ‘ ϕ^* ’ is a proximate incompatible of ‘ ϕ ’.⁷¹

The notion of definiteness features prominently here. But remember from our exposition of Field’s account of vagueness, above, that the introduction of a ‘definitely’ operator can be unmotivated, and can bring more problems than it solves: in particular, some explanation will have to be given of what makes cases definite ones. For the deflationist, this characterisation had better not be given in terms of truth, on pain of circularity, a bullet Field attempts to dodge by describing ‘definitely’ as primitive. Raffman herself claims that such a definiteness operator is ‘otiose at least insofar as it had been introduced to avoid flat out contradiction’,⁷² and offers an account that dispenses with it:

- (i) For any proximate incompatible predicates ‘ ϕ ’ and ‘ ϕ^* ’, x is a $\phi[\phi^*]$ borderline case if and only if x belongs to a ϕ/ϕ^* ordering but is neither ϕ nor ϕ^* .
- (ii) x is a borderline case for ‘ ϕ ’ if and only if there is some proximate incompatible predicate ‘ ϕ^* ’ such that x is a $\phi[\phi^*]$ borderline case.⁷³

Let’s see how this goes with an example. Consider a standard vague predicate, like ‘is tall’. Consider a proximate incompatible predicate, ‘is of medium height’. It seems clear that these are proximate incompatibles: (i) There is a dimension D (height) which

⁷¹ Raffman (2005, p. 9).

⁷² Raffman (2005, p. 9)

⁷³ Raffman (2005, pp. 9–10)

is decisive of the application of each predicate; assuming that context is fixed, there is no information other than the height of the person in question which will determine whether they are tall or of medium height. (ii) A person may be tall or of average height, but not both. (iii) There are people—those of height h , perhaps 5 feet 11—such that their height provides some equal positive justification for describing them as either tall or of medium height.

Now suppose that there are borderline cases of ‘is tall’ and ‘is of average height’: there is a value of h such that a person (Stephen) of that height such that there is some equal positive justification for applying the predicates of ‘is tall’ and ‘is of average height’ to Stephen, but who is *neither* tall, *nor* of average height. Let’s focus on ‘is tall’: these borderline cases of ‘is tall’, like Stephen, are simply *not tall*, on this view. They are borderline cases of ‘tall’, but not of ‘is not tall’. Now the predicate ‘is not tall’ may also have borderline cases, but they *will not be the same as the borderline cases of ‘is tall’*. In fact, a predicate and its negation will never share borderline cases, on this view. This is easy to see. Recall that the borderline cases of any predicate ‘ ϕ ’ are not ϕ , on this view. So for a predicate ‘ Σ ’ with a borderline case ρ , $\neg\Sigma\rho$. Now consider the predicate $\neg\Sigma$: is ρ a borderline case of $\neg\Sigma$? No, since in order to be a borderline case of $\neg\Sigma$, we would need that $\neg\neg\Sigma\rho$, which is equivalent to⁷⁴ $\Sigma\rho$, but we have agreed that $\neg\Sigma\rho$. ‘Is tall’ has borderline cases, but they are simply not tall.

What, then, separates those people like Stephen who are not tall and borderline cases of ‘is tall’, from those people who are not tall and *not* borderline cases of ‘is tall’? The answer is that the borderline cases are those people who fail to be tall, but with some claim to lying in the extension of the predicate ‘is tall’. Recall that the borderline cases like Stephen are those people who might with some equal justification be described as tall or of average height, but who are neither. The difference between Stephen and someone who is both not tall and not a borderline case of ‘is tall’ is that the latter person—of height 4 feet 4—has no claim whatever to being tall. On Raffman’s picture, there are the people who are tall, there are the people who are of average height, and

⁷⁴ Recall that the logic is classical.

then there are the people who—like Stephen—are neither tall nor of average height, but who fall between the two and whose height provides some equal positive justification for the application of each predicate, but not enough to apply either one.

There are issues that can be raised with this account of vagueness, and I shall raise them below, but it's worth noting how promising this theory is, and how congenial to the deflationist. Since the logic is classical, and borderline cases of ' ϕ ' are simply not ϕ , the deflationist seems to have no more trouble with discourse involving borderline cases, on this view, than with discourse about the whiteness of snow. The deflationist also seems to have no trouble demarcating vague from non-vague discourse, on this view: to say that a predicate 'P' is vague is just to say that there is another predicate 'P*', such that 'P' and 'P*' are proximate incompatibles, and that there are P[P*] borderline cases.

Raffman's view is implausible

We have seen that Raffman's new account is admirably congenial to the deflationist. But in this section, I want to argue that, like Field's account of vagueness, it fails for other reasons. In this case, I think that the incompatibilist view fails to respect several facts about vagueness and borderline cases. The first fact is that definiteness seems to be independently expressible (phrasing), and the second is that the view seems to posit sharp cut-offs.

Consider the sentence 'John is definitely not rich'. On the incompatibilist view, the meaning of this sentence must be explained in terms of the existence of—more precisely, the non-existence of—a certain kind of proximate incompatible predicate. For 'John is definitely not rich' means that John is not rich, and is not a borderline case of rich. So far, this seems an inoffensive explanation of what is meant by the original sentence. But problems arise when we try to say what we mean by *this*. On Raffman's view, it would be this: John is not rich, and there is no proximate incompatible predicate ' ϕ ' such that John is $\neg\phi$ and there is some equal positive justification for ascribing either 'is rich' or ' ϕ ' to John. But consider the what is involved in asserting 'John is definitely not rich': this seems to involve no other predicates, proximate incompatibles

or otherwise.⁷⁵ If ‘John is definitely not rich’ is about any predicates, then it is about ‘*is rich*’, and not about ‘is middle-income’ or any other putative incompatibles. We can see this by noting that someone who had learnt the word ‘rich’, but no other predicates describing the wealth of individuals (ie, someone who is limited to using variations of ‘is rich’ and ‘is not rich’) could express that John is definitely not rich, despite having no proximate incompatibles in her repertoire. Incompatibilism thus seems unable to capture the content of what we are expressing.

It isn’t merely that incompatibilism can’t handle the case where there is only one predicate along a dimension, and so no proximate incompatibles for that predicate. The problem also arises if there are other predicates, which are not proximately incompatible. For example, suppose that ‘is destitute’ is an incompatible, but not a proximate incompatible: even if I am a perfectly competent user of ‘rich’ and ‘destitute’, this competence won’t allow me to express the thought *that John is definitely not rich*. Also notice that some dimensions don’t seem to come with proximate incompatibles: Raffman considers the example of ‘heap’. How are we to express similar propositions here?

Let’s look at the second issue. Consider an instance of the Sorites paradox: someone who earns £1 per year is poor;⁷⁶ someone who earns £500,000 per year is not poor; if someone who earns £*n* per year is poor, then someone who earns £(*n*+1) per year is also poor, since £1 per year couldn’t be the difference between being poor and not being poor. Furthermore, assume that the person who earns £500,000 per year is not only not poor, but rich.

Let’s set aside the Sorites issue for a moment, and just focus on the borderline cases. Now, there seem to be borderline cases between the poor man who earns £1 per year, and the rich man who earns £500,000 per year. Raffman’s view deals with that case—assuming for the moment that ‘is poor’ and ‘is rich’ are the only two proximate incompatibles in play—by claiming that borderline cases of ‘is poor’ are simply not poor. They are, however, not rich either, and their yearly income provides some equal

⁷⁵ Thanks to Keith Simmons for pointing this out to me.

⁷⁶ Subject to the obvious constraints—we don’t want to include children whose parents earn £2m in our dragnet of poverty.

positive justification for describing them as rich or as poor. Suppose that someone (David) who earns £40,000 per year is a paradigm such borderline case. Then there is some equal positive justification for describing David as rich or as poor: he is a borderline case. But now consider two individuals, S. Richer (who earns £42,000) and S. Poorer (who earns £38,000), and stipulate that they too are borderline cases. Then what does this mean? That there is equal positive justification for describing S. Poorer as rich and as poor, and also for S. Richer. So David, S. Richer and S. Poorer are all described as rich and as poor with equal justice. But this seems to be precisely *not* what is going on: even granting that David may be described with equal justice as rich or as poor, surely in virtue of his higher income S. Richer is described with *slightly more* justification as rich, and *slightly less* justification as poor, and vice versa for S. Poorer?

Raffman's view thus seems to gloss over the differences between borderline cases. It seems to me that the only option open to her to avoid this is to posit indefinitely many proximate incompatibles, so that David, S. Richer and S. Poorer are all described with equal justice as rich and as some other predicate, but a different predicate in each case. This approach cannot be congenial to her. Leaving this approach aside for one moment, there are, for a given predicate ' ϕ ' and a given proximate incompatible, three classes of case: those which are ϕ , those which are $\neg\phi$ but are borderline ϕ , and those which are definitely $\neg\phi$.⁷⁷

Let us return to the Sorites. It is then clear that this view can resist the Sorites deduction: there will be a first number of pounds, k , such that someone who earns $\pounds(k-1)$ is poor, but someone who earns $\pounds k$ is not poor (but is presumably a borderline case of poor). This resistance to the Sorites seems to come at a heavy price though: doesn't $\pounds k$ now represent a sharp cut-off for 'is poor'? Since we are phenomenologically unable to discern such a borderline, we are in danger of making 'an occult quality out of truth'.⁷⁸ the sentence 'someone who earns $\pounds(k-1)$ is poor' is true, and the sentence 'someone

⁷⁷ Keith Simmons has suggested to me that the Supervaluationist can do better, here: for a suitably infinitary reading of 'more', there intuitively are more admissible sharpenings of 'is rich' on which S. Poorer is not rich, than there are sharpenings on which David is not rich.

⁷⁸ Mehlberg (1996, p. 86).

who earns $\pounds k$ is poor' is false, on Raffman's view, though we are unable to determine what this k is. Does Raffman's view collapse into epistemicism?

But I don't think that it's mere phenomenological implausibility at work here. Raffman's view fails to respect tolerance, too. Recall the definition of tolerance:

F is *tolerant* with respect to ϕ if there is some positive degree of change in respect of ϕ insufficient ever to affect the justice with which *F* applies to a particular case.⁷⁹

We can quickly see that tolerance fails, on the incompatibilist view. Let *F* be a predicate with borderline cases, that ranges over the real numbers in the range $[1, 10]$. Without loss of generality, let $[1, 3]$ be the extension of the predicate, and let *F** be a proximate incompatible with extension $[7, 10]$. Then, the numbers in the range $(3, 7)$ are the borderline cases of *F*. Suppose, for the sake of contradiction, that *F* is tolerant, and that the positive degree of tolerance is k : if $F(x)$, then $F(x+k)$. But this fails, since $F(3)$, but $\neg F(3+k)$, for any k .

Let's see where we are. We have considered two new accounts of vagueness: Field's account—explicitly intended to be cotenable with deflationism about truth—and the incompatibilism of Raffman, which was not motivated by any concern for deflationism, but might be thought congenital to it, since its logic is classical. We have seen that both are indeed consonant with deflationism—but that there are grounds to think that both fail *qua* account of vagueness. Significantly, both fail for the very reason they are friendly to the deflationist. Field uses 'definitely' to explain strong truth in terms of weak truth, but this fails to respect the ubiquity of strong truth (notwithstanding the implausibility of a primitive definiteness operator). Raffman's adherence to classical logic obviates the need for a strong truth-predicate, but brings implausibility in its train.

⁷⁹ Wright (1996, pp. 156–7).

PART 4: CONCLUSION

At the start of this paper, we evinced the following problem: it seems like many more local problems in philosophy need the resources of a robust theory of truth, and that deflationary accounts of truth aren't up to the job.

We then presented vagueness as an example. We saw that vagueness is pervasive, and that it seems to lead to the Sorites paradox. So we need a theory of vagueness: an account which will explain, or explain away, the ubiquity of vagueness, and defuse the paradox. The most prominent representative of the semi-classical category of approaches to vagueness is Supervaluationism. I argued that the Supervaluationist account of vagueness raises problems for deflationary accounts of truth, and that this is due to structural features of semi-classical accounts: notably, truth-value gaps. The deflationist seems to have trouble accommodating any of this type of approach.

But there are other approaches to vagueness, which might be more congenial. We mentioned one—the epistemicism of Williamson—and considered another—Raffman's incompatibilism—in more detail. They are both congenial to the deflationist. But this comes at a price. I think that the very reason why they are so congenial (their classical truth-conditions), is a reason why they fail on their own terms as accounts of vagueness: sharp boundaries. Recall that the challenge of the Sorites derivation is that the premisses seem so intuitive, perhaps even *undeniable*. But these two accounts both proceed by denying one of the premisses—either the general statement of tolerance, or an instance of tolerance.

In this part of the paper, I want to consider two more 'meta' questions: why is vagueness a good example of this general problem?; what conclusions should we draw if a theory of vagueness *is* incompatible with deflationary truth?

Why vagueness?

Suppose that we are rabid inflationists, looking to undermine deflationary accounts of truth. We want to do this by showing that some philosophical issue needs more than

deflationary truth can provide. How do we go about choosing an issue that will have the most dialectical force? I think there are two kinds of issue that we might choose from. There are cases where there is a real or supposed platitudinous connection between the local issue and a robust notion of truth, and there are cases where there doesn't seem to be such a platitudinous connection, but where we have inductive evidence that there is no account of the issue that *doesn't* involve robust truth. We have a choice about which kind of case to use, so let's say a bit more about this.

Genuinely platitudinous connections offer the benefit of ineliminability: if there really is a central platitude linking two concepts, then any respectable analysis of one of them cannot but respect that link. For example, if the connection 'to assert is to present as true'⁸⁰ is genuinely platitudinous, and the deflationist is unable to cash out 'to present as true', then that seems to be a serious and—thanks to the ineliminability of platitudinous connections—permanent score against that deflationary theory. Though it is mildly painful to turn away from the philosophical elegance this would represent, I think that elegance is undermined by the dialectical weakness of this strategy; some deflationists don't like platitudes, so we don't want to beg the question against them by 'refuting' deflationism about truth with the help of those platitudes that the deflationary project is intended to dispense with. The project against the deflationist now might be to show that there *are* such genuinely platitudinous connections, in particular between some concept and robust truth. However, I wish to pursue the other option.

'Inductive' connections, on the other hand are those where we have been unable to give any account of the issue in question *sans* robust truth, and where this has been going on for so long that we have no reason to think that we'll ever be able to give such an account. This sort of connection has a big disadvantage: like any claim whose warrant is solely inductive, it runs the risk of next-day falsification. Suppose that, for example, the lack of a theory of vagueness *sans* robust truth is such an inductive incompatibility, and that we reject a deflationary account of truth for that reason. Then the risk is that a new account of vagueness is found tomorrow which immediately makes the incompatibility

⁸⁰ Wright (1992, p. 34).

moot and all our work for nought.

But I think that, in the case of vagueness, the dialectical advantage of pursuing this kind of strategy outweighs this risk, for two reasons. Firstly, vagueness is such a central, pervasive and potentially disastrous⁸¹ issue, that any incompatibility between deflationism and the main theories of vagueness is a serious issue, to which the deflationist owes us some answer. The fact that right now, the most plausible accounts of vagueness are incompatible with deflationism does put pressure on the deflationist—see for example Field’s attempt to construct a theory more amenable to his project. Secondly, we have given a more general reason to think that no such account will be forthcoming: it seems that any theory of vagueness that is congenial to deflationism will need to preserve classical logic, but that this leads to serious deficiencies *qua* theory of vagueness. It is hard to see how we could have one, without the other. ‘Vagueness needs nonclassical logic’ clearly doesn’t count as a platitude, but it might be reason to think that no classical account is likely to succeed.

Deflationism and local theories

In this paper, we have been considering a putative incompatibility between deflationary accounts of truth and certain theories of vagueness. This is supposed to be an instance of a wider problem: can deflationary accounts of truth provide the resources needed for more local theories? We have seen some reason to think that deflationary truth *does* fail in this respect, at least in connection with vagueness. In slogan form, deflationary accounts of truth don’t respect the essentially non-classical nature of the most plausible accounts of vagueness.

Suppose for a moment that this is right—that there is an incompatibility—who should come out on top? More precisely: if there is an unfinessable incompatibility between an account of truth, and independently supported local theories is this grounds to abandon one or both, and if so—which?

It seems clear that such a clash (if it consists in the assertion of an outright con-

⁸¹ Since it brings the Sorites—a contradiction from apparently uncontroversial premisses.

tradition, and not mere philosophical tension) compels us to abandon at least one of the clashing accounts. If there were an outright contradiction, then no new information could remove or resolve that contradiction—the monotonicity of deductive logic guarantees that no new premisses could undermine the contradictory conclusion $p \wedge \neg p$, for some sentence p —so to avoid contradiction, one of the theories will have to go. But not (necessarily) both: removing one of the offending premisses is sufficient to vitiate the contradiction. so on the face of it, an outright contradiction of this sort between two theories provides warrant for abandoning one or other of the clashing theories.

Can we say anything about which theory should be abandoned? It is tempting to say that we can't make a general prescription, since—at this level of generality—the situation is highly symmetrical. But I think that we can say something.

I think that we can motivate a general prescription: since vagueness is a less general phenomenon than truth, it would be wrong to reject a theory of vagueness because of what you think about truth. Instead, we should reject the account of truth. It is an adequacy condition on a theory of truth that it is not incompatible with local theories.

Here is one, speculative try at motivating that. Truth is a much more general issue than vagueness; vague discourse is just one of many that the theory of truth must range over. And we have seen reason to think that a certain account of truth is incompatible with a broad class of successful accounts of vagueness.⁸² It seems inappropriate for a general theory—truth—to have such ramifications in apparently live local debates. This seems right. But the opposite direction doesn't seem to go the same way: it is a feature of the vagueness problem that it seems open to classical, semi-classical and non-classical attempts at solution, and any theory of truth worth its salt will have to capture this. It is rather hard to make these general points in a more specific way, but I think that some line like this will allow us to reject a theory of truth for reasons of vagueness, whilst rejecting the converse inference.

Ad hoc though it may seem, we can reject a theory of truth because it fails to respect

⁸² Here, the success is sociological: many have thought that some version of semi-classical theories like Supervaluationism must be the right answer—and such accounts are, as we have seen, very promising.

vagueness, yet not reject a theory of vagueness because it fails to respect a particular account of truth.

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